

CHARTWELL VIEWS

December 2, 2008

Current asset allocation ideas

A continuing series

Market Volatility's Impact on Stock Valuations

(Editor's Note: Sometimes it's important to step back and try to understand what the conventional wisdom is based on, in order to determine if you really agree with it. Many market strategists currently feel that stock markets "have" to go up from today's levels. We think so, too. Here's why)

The Bottom Line

If you believe there has been a permanent revaluation of risk by investors, such that today's virtually unprecedented levels of market volatility and risk aversion will be "the new market means," then it follows that stock markets are **not** yet poised to go up, and indeed are likely to fall further as near-term earnings decline (and they will decline over the next few quarters). But, if you believe, as we do, that there are powerful reversion to the mean forces on display in the following graphs, then the big picture perspective today favors **a very meaningful increase** in your commitments to riskier assets (stocks in particular, but also corporate bonds), even though near-term earnings will be declining.

Because we also believe that concerns regarding earnings declines will continue to "do battle" with falling WACC in the months ahead, we think the prudent path to increasing your risk asset commitments should be a gradual one, *starting today* but spreading out the higher risk asset buy program (funded by sales of lower risk core bond accounts) over the next six months.

However, be aware that historical recoveries from market lows have not favored this patient approach. As the attached graph at the end of this report clearly demonstrates, when bear markets end the initial recovery is pretty brisk. The average recovery in the first six months is 23% (in a range of +10 to +44%).

If we *knew* that the next few quarters' EPS weakness has already been fully baked into the cake, and that November 20th was indeed the market low, then our recommended 6-month timeframe for asset re-allocation will prove to be less profitable than simply re-allocating all at once this week. We wish we could know these things, but no one can.

The last time we recommended a wholesale re-balancing into stocks was August 2002. The S&P 500 index was at 820, which seemed like the unbelievable giveaway it ultimately proved to be. Yet, that index had declined to 776 by early October, and really didn't begin to make much attempt to get out of its own way until the following March. Back then, the economic and credit situations were also much more stable than they are today. We may have entered our present recession a long 12 months ago, but it is certainly not over.

Background & Analysis

Surely the stock market collapse of 2008 should present amazing buying opportunities for those fortunate enough to have hidden a pile of cash under a mattress at the beginning of the year...right? Certainly this bear market has caused tremendous wealth destruction, and based on the Nov. 20th market low it has been the second worst bear market on record. However, before investors plow back into this market, they should consider why the market has declined and how much further the market could still fall. If we do see a bear market similar to that of 1930 – 1932 we could still see another -50% decline from here.

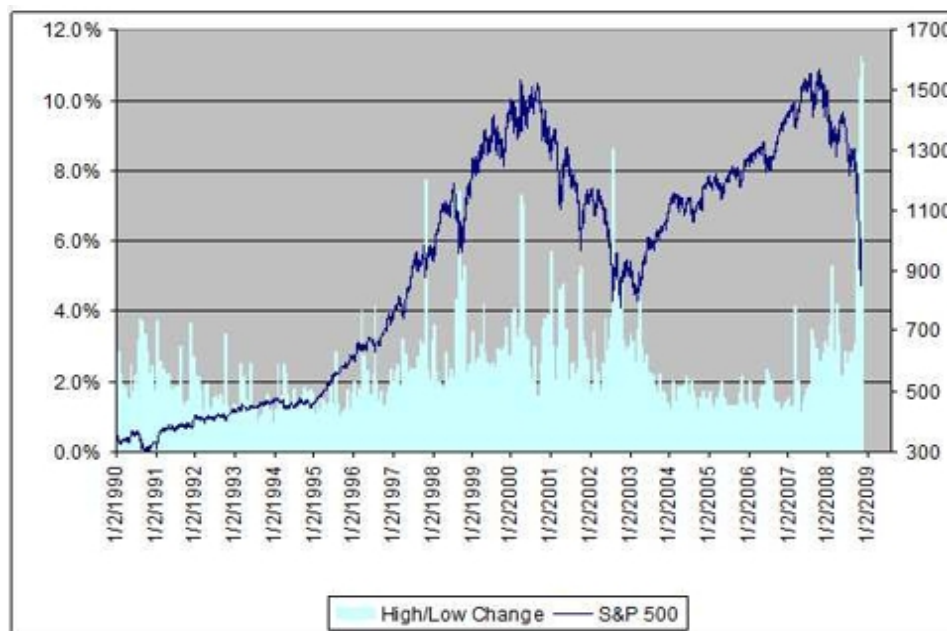
Worst Bear Markets in History

March 1930 - June 1932	-78.2%
Oct 11 2007 - Current	-52.3%
Feb 1937 - March 1938	-46.9%
Dec 1999 - Sept 2002	-45.3%
Dec 1972 - Dec 1974	-38.0%

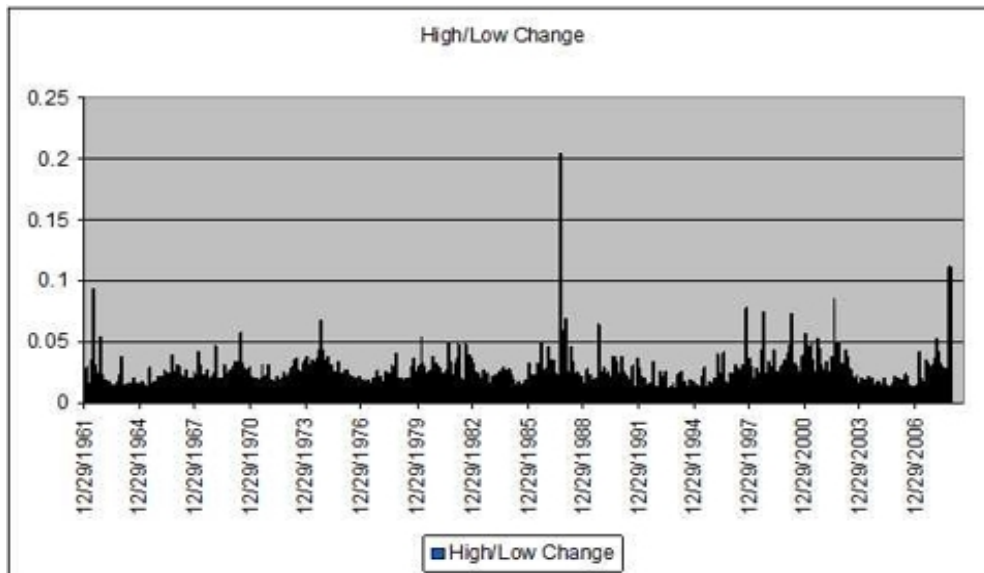
Why the market-wide sell-off, and why might investors not want to bet on the market snapping back? Let's look at this on the individual stock level.

The price or value of a stock represents the value of a perpetual stream of cash flows discounted at an appropriate risk adjusted rate. According to the Capital Asset Pricing Model (CAPM) the appropriate risk adjusted rate is the **weighted average cost of capital (WACC)** for the company. The WACC estimates the cost a company would pay for its capital if it needed to raise funds today. This rate takes into account the business risk of the company and the financing risk of the respective capital structure. A company's WACC is comprised of the company's cost of borrowing (cost of debt), the market risk premium, and the company-specific level of risk relative to the overall market (measured as beta). The market risk premium represents the amount of return that investors require to invest in stocks (risky assets) as opposed to government bonds (risk-free assets).

Volatility can be viewed as a measure of uncertainty. The following graph is based on historical data for the S&P 500 since 1990, to see how current volatility compares historically. Each data point is the percent change between the day high and day low (measures intraday volatility), with the S&P's cumulative return mapped over it. As you can see, we are living in unprecedented times regarding the level of market volatility.



Taking an even longer view going back to 1961 you can see that this level of intraday volatility is unprecedented except for the 1987 crash.



If we follow this line of reasoning through, an elevated level of uncertainty should lead to a higher market risk premium - which as a reminder is the amount of return that investors require to invest in stocks (risky assets) as opposed to government bonds (risk-free assets). The market risk premium is an input into the WACC calculation, which in turn is used by the market to discount the value of the expected cash flows of the stock. If we assume that a stock is worth the discounted present value of free cash flows in perpetuity, a simple formula using EPS for valuing a stock is as follows:

$$\text{Stock price} = \frac{\text{Earnings Per Share}}{\text{WACC} - \text{long term expected growth rate of EPS}}$$

The below example shows the drop in the value of a hypothetical stock due to an increase in the market risk premium alone. As you can see, an increase in the market risk premium from 6% to 8% leads to a drop in the value of the stock of roughly -25% even though the current earnings power (earnings per share) of the company, and its long-term growth rate, remains unchanged.

EPS	\$1.00	EPS	\$1.00
Stock Price	\$23.47	Stock Price	\$17.67
<u>Capital Structure</u>		<u>Capital Structure</u>	
Weight of Debt	30.0%	Weight of Debt	30.0%
Weight of Equity	70.0%	Weight of Equity	70.0%
cost of equity	11.00%	cost of equity	13.00%
cost of debt	8.00%	cost of debt	8.00%
tax rate	35%	tax rate	35%
Risk free rate	5.00%	Risk free rate	5.00%
Market premium	6.00%	Market premium	8.00%
Beta	1.00	Beta	1.00
WACC	9.26%	WACC	10.66%
Long term Growth rate	5.0%	Long term Growth rate	5.0%

Conclusion

The above example shows that an increase in the risk premium demanded by investors for investing in risky assets should result in a significant decline in the stock value even without any deterioration in the fundamental profitability of the company. It is important to note that the market risk premium is the same “rate” for all stocks, so any change would impact the entire asset class or the stock market as a whole.

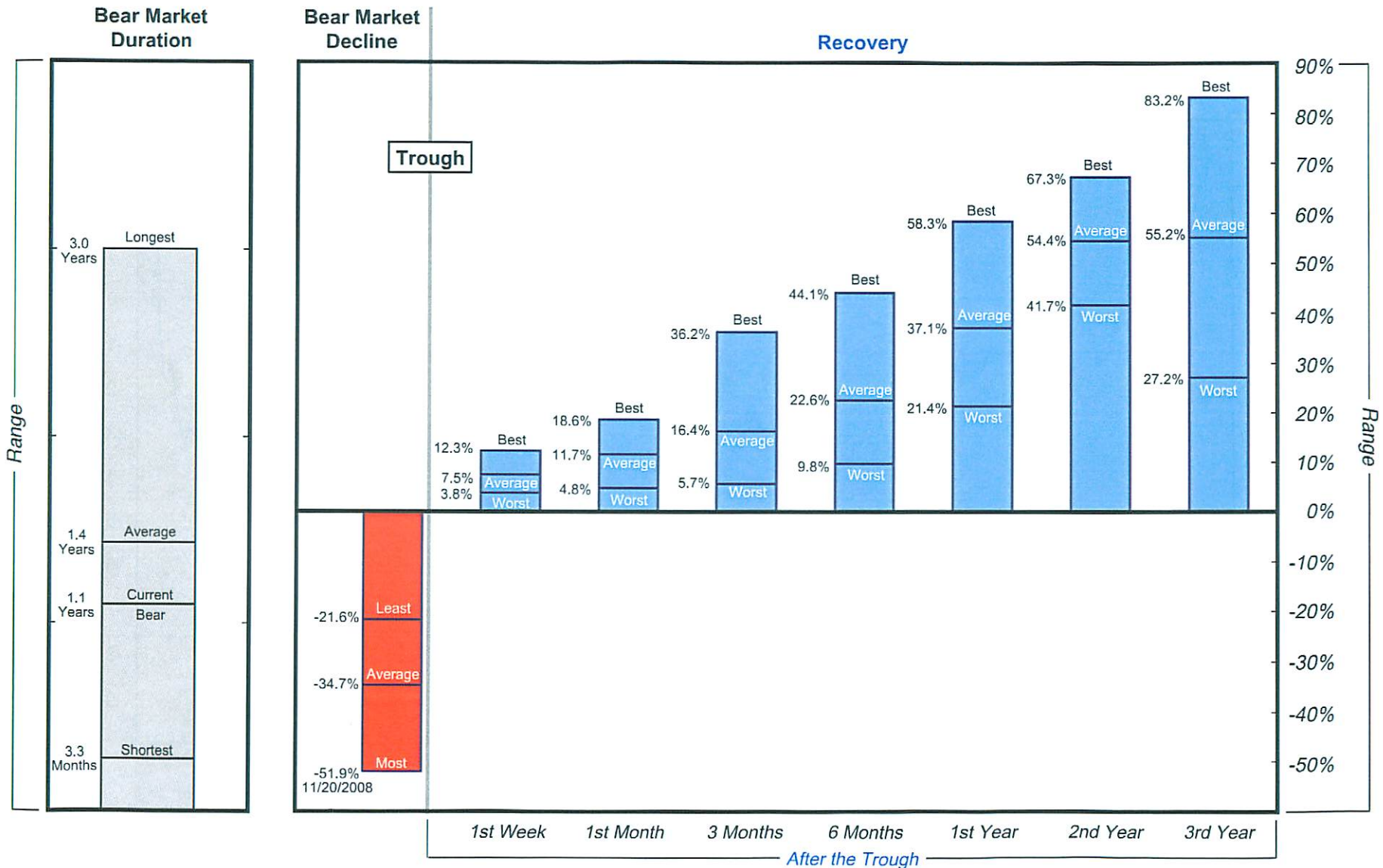
One perspective of this year’s stock market debacle is that the unprecedented level of volatility suggests a large part of the market sell-off is due to a permanent revaluation of risk. Admittedly, with so many variables and moving parts that go into valuing a stock, it is virtually impossible to know what is baked into current market prices. However, we know that a higher discount rate will lead to a lower value for stocks, even if we hold all else equal. Investors should not expect to recover this “value” very soon if elevated volatility in the financial markets has led to a permanent impairment of stock valuations.

But, the opposite is also true: if volatility in the financial markets reverts to its long-term mean, this will reduce the market risk premium and reduce each stock’s WACC (assuming all else equal, as in the above example). Even if market volatility simply reverts to a “new higher mean,” but one which is below today’s virtually unprecedented level, each stock’s WACC will go down, and share prices will rise. And, as we can observe from looking at the 47-year chart above, this mean reversion has always happened.

So, here’s another reasonable perspective. With risk-free rates now down at 3%, and market volatility much more likely to decline from this point instead of rise, the cost of equity in the WACC equation is poised to fall. Further, the cost of debt, which has also skyrocketed this year as credit spreads have widened to Depression-era levels, is also poised to fall (or at least not rise). Thus, the market’s overall WACC is poised to decline, and stock prices are poised to rise.

When Bear Markets End

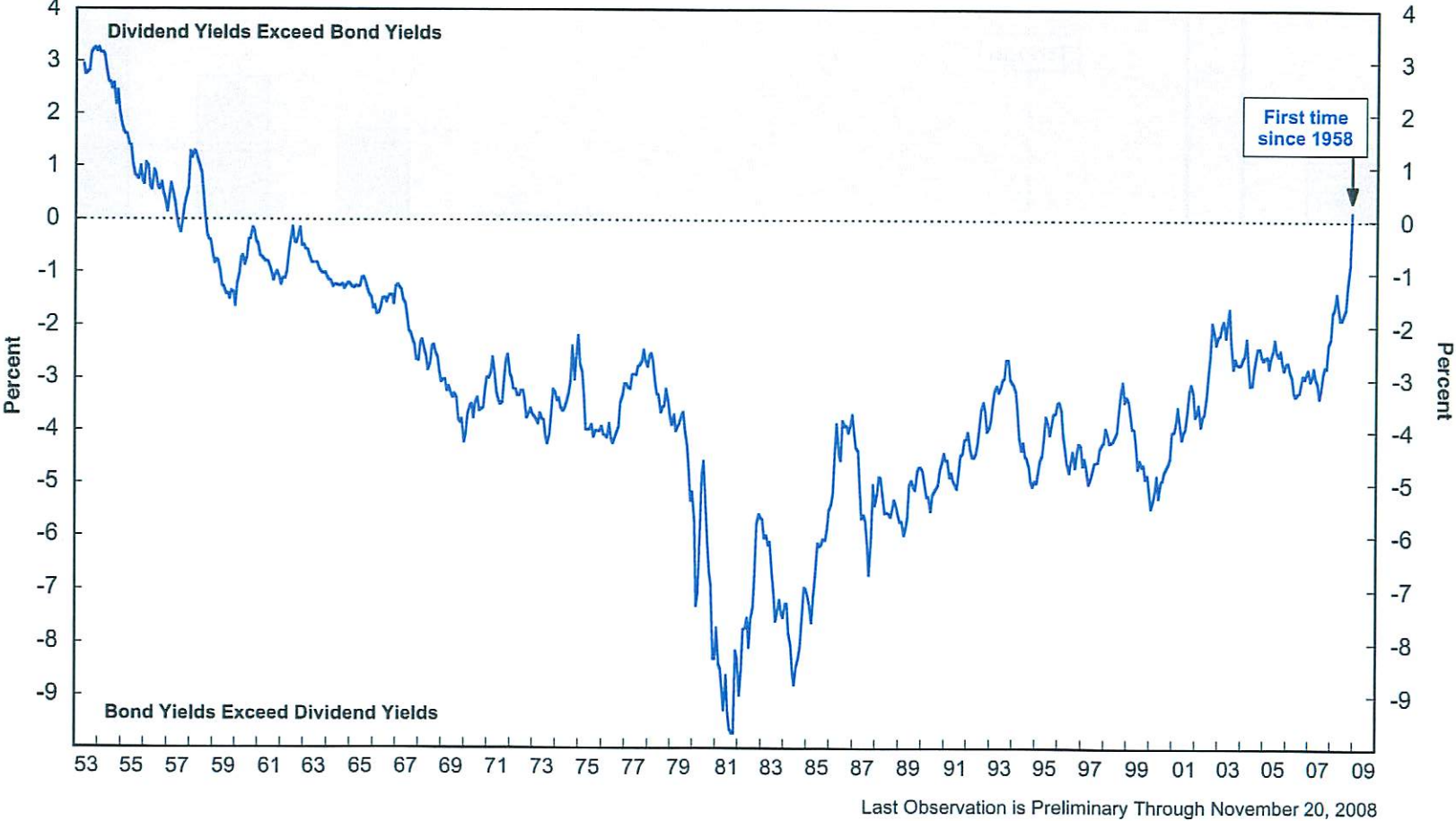
The Standard & Poor's 500 Stock Index



Data for the Current Bear Market is preliminary through 11/21/2008.
 Note: Data includes post-WWII Bear Markets as defined by the Standard & Poor's 500 Stock Index.
 Sources: Standard & Poor's Corporation; Copyright © 2008 Crandall, Pierce & Company

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S&P 500 Dividend Yields less 10 Year Government Bond Yields



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